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# CHILD POVERTY IN CANADA

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A 1989 all-party motion of parliament called for the elimination of child poverty in Canada by the year 2000. Despite a series of policy initiatives, recent reports suggest that the child poverty rate may now be comparable to that in 1989. The apparent persistence of child poverty in Canada might reflect socioeconomic developments, or something about the way that child poverty is measured. Using micro data covering the period 1986 to 2000 we find little support for these explanations.

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# 1. INTRODUCTION

Poverty among children is often singled out as a social ill of particular and broad concern. There are numerous reasons for this. Low income or poverty are associated with a plethora of adverse childhood outcomes (for example see Dooley et al. 1998; Curtis et al. 2001; Phipps, 1999; Mayer, 1997). Further poverty among children may be seen as inconsistent with 'equality of opportunity'. As Osberg (2000) notes, poor children may be perceived as the group most clearly 'not responsible' for their condition.

The well being of children was highlighted as a national priority in Canada in 1989 when an all-party motion of parliament called for the elimination of child poverty in Canada by the year 2000. And indeed, the decade since has seen a number of changes to policies that affect families with children. In 1990 parental benefits were added to unemployment insurance (UI) benefits. The child tax benefit and the earned income supplement (EIS)[1] were introduced in 1993, and 1997 saw taxation changes on child support payments, and the EIS was increased. The National Child Benefit was established in 1998, increased in 1999 and again in 2000. (Kamerman and Khan, 1997; Wiggins, 1997; Stroick and Jenson, 1998).

Despite these initiatives, aggregate trends suggest that the goal of improving the well being of less fortunate children has remained elusive (Phipps, 1999; Myles and Picot, 2000). Phipps (1999) reports that poverty intensity among children aged 0 to 18 was actually higher in 1996 than in 1989; children from 0 to 6 were worse off than they had been in 1976. The failure to meet this national priority poses something of a puzzle, particularly in light of the success of other targeted anti poverty agenda, such as the drastic reduction in poverty among the senior population that had previously been achieved.

There are several potential explanations for the persistence of child poverty. First, it may simply reflect something about the way child poverty is measured in Canada. Measurement issues have loomed large in debates of the success of the US "war on poverty" (see the exchange between Jorgensen (1998) and Triest (1998) for example.) Second, it might be that socioeconomic developments, such as rising

numbers of lone-parent families or increases in wage dispersion are responsible. Finally, it may be a problem of policy design or implementation. Canadian child policy initiatives over the decade may have been poorly targeted, of inadequate scale, or offset by other, coincident, policy developments.

The purpose of this paper is to assess the first two explanations by taking a very detailed look at changes in the resources available to children, particularly less fortunate children, over the period 1986-2000. Using a number of Canadian micro data sets, we focus in particular on the sensitivity of child poverty trends to alternative measurement approaches, and on the role of socioeconomic developments in the apparent persistence of child poverty. The analysis comprises three main sections.

First, we examine how the measurement of child poverty in Canada depends on the resource measure used. We compare income, which is the most common measure in poverty studies, with consumption. Recently, a number of authors (Cutler and Katz, 1991, Slesnick, 1993, Pendakur, 2001) have employed consumption data rather than income data. The central motivation for this switch is the idea that, if households can inter-temporally allocate by saving or borrowing, then current income may be a poor measure of currently available resources. We also follow Mayer and Jencks (1989) and Mayer (1993) and examine measures of material deprivation which are based on (housing and durable) stocks rather than resource flows.

The second section of our analysis focuses on consumption poverty and examines the sensitivity of our estimates to alternative choices regarding price indices, equivalence scales and the poverty line.

The third part of our analysis also focuses on consumption poverty among children and investigates poverty among subgroups of the population of children. We relate changes in aggregate child poverty to socioeconomic and labour market developments by decomposing aggregate changes into changes in population shares, changes in within group poverty and a residual.

Two recent papers touch on these issues. Myles and Picot (2000) note that policy initiatives that are targeted at the most disadvantaged may have little impact on the poverty *rate* (or headcount). Using an

income based resource measure and the Sen-Shorrocks-Thon index of poverty *intensity*, they find that child poverty declined in Canada between 1981 and 1989 but rose between 1990 and 1996.

Pendakur (2001) present estimates of consumption poverty in Canada. He uses an absolute poverty line and equivalence scales and price indices derived from estimation of a demand system. While most of his analysis concerns the entire population he does present some estimates of child poverty. Those numbers suggest that child poverty fell between 1986 and 1992 but rose again so that by 1998 they were somewhat higher than in 1986 (4.2 versus 3.3%).

Our analysis differs from these is several important respects. Namely, our paper focuses on children, we compare several measures of resources available to children, we provide analyses of the sensitivity of our results to various alternate measurement strategies employed in the literature and we update results to 2000, the year that child poverty was to be eliminated. As far as we are aware, this is also the first paper to examine poverty in Canada with data on durables stocks.

The principal results of the current paper are as follows. We find that measured by consumption the distribution of resources available to children is very stable. Unsurprisingly, both poverty and overall inequality are lower when measured with consumption than when measured with income. Estimates of consumption poverty are quite sensitive to the treatment of housing services. Income poverty among children rose slightly between 1986 and 1998 and then settled back to the 1986 level in 2000. Consumption poverty among children appears to have declined slightly between 1986 and 1998 but then climbed to the 1986 level in 2000. By both measures poverty returned to 1986 rates by 2000. Intensity and inequality measures follow much the same pattern. This result is robust to the choice of price index but somewhat sensitive to the choice of equivalence scale. Because median resources were almost unchanged over the period, the choice between an absolute and relative poverty line is of little consequence.

By no measure do we see substantial improvements in child poverty. Thus we still have the

"puzzle" given the stated policy priority. Our dis-aggregate analyses shed some light on this. In some cases it was simply that a group was too small for substantial improvements in within- group poverty to have much impact on aggregate child poverty. Socioeconomic developments may also have played a role. Improvements among high risk groups were, in some cases, offset by increases in the size of those groups. For example, poverty fell among children living with lone parents, but at the same time, the share of children in this high poverty group rose. However, there were also cases where socioeconomic developments served to reduced child poverty. For example, there was an increase in the share of children living in households where both parents worked. Thus we conclude on balance that socioeconomic shifts, like measurement choices, are largely unable to explain the persistence of child poverty in Canada. This points future research towards possible failures of policy design or implementation.

The outline of the paper is as follows. In the next section we discuss the data and methods used in this study. Section 3 presents an analysis of child poverty in Canada using alternative measure of resources: income flows, expenditure flows, and durables stocks. Section 4 focuses on expenditure flows and examines the sensitivity of child poverty trends to other measurement choices, such as the equivalence scale and price index. Section 5 presents our decompositional analysis of the role of socioeconomic developments in determining child poverty over time in Canada. Finally, Section 6 offers some conclusions and directions for further work.

## 2. DATA AND METHODS

### *2.1. The Surveys*

The data employed in this study come from public use versions of Statistics Canada's *Survey of Household Spending (SHS), Family Expenditure Survey* (FAMEX) and *Household Facilities and Equipment Survey* (HFE). All three are based on the Labour Force Survey sampling frame which is a

nationally representative cross section of households. Statistics Canada's *Survey of Consumer Finances (SCF)*[2] has been used extensively to study poverty and low income in Canada (See for example Myles and Picot, 2000). The FAMEX and HFE were conducted less frequently than the SCF and contain less detailed income information. The principal advantage of the FAMEX is that it contains expenditure information, which is believed to be of good quality. Expenditure data allow us to deal with issues of intertemporal allocation, and (to a lesser extent) intrahousehold allocation. We return to these points below. The HFE contains information on stocks of durable goods and housing amenities, which allows us to examine alternative measures of material deprivation, based on stocks rather than resource flows. Beginning in 1997 the FAMEX and HFE were replaced by the SHS, which collects information on both expenditures and durable stocks.

*2.2 Sample Definition and Weighting*

Our analysis employs the 1986,1992 and 1996 editions of the FAMEX, 1985, 1993 and 1996 editions of the HFE, and the 1998 and 2000 editions of the SHS. The 1986 FAMEX treats the "spending unit" as the unit of analysis, while the later FAMEX and SHS surveys focus on the "household". To ensure comparability across time and surveys we limit the sample in all years and surveys to spending units or households that consist of a single "economic family".[3]

Through out the analysis we restrict the sample to households with children. Further, we weight the data in all calculations by the product of the population weight provided by Statistics Canada and the number of children in the household. The combination of restricting the sample to households with children and then re-weighting each household by the number of children present results in a data set which is representative of the population of children. This is appropriate given that children themselves (and not their parents or the households they live in) are the focus of our analysis.

Unfortunately, the information on the age of household members is not entirely compatible across the different surveys. The best we can do is define a child as 17 and under in all years and surveys except

for the 1996 FAMEX, in which we define a child as 15 years of age or under. Thus differences we find between 1996 and other years should be treated with caution as they may reflect in part the fact that the child population is defined differently in 1996. This is particularly unfortunate because 1996 and 1986 are very similar business cycle years and would make a very natural comparison. Instead, we emphasize comparisons between 1986 and 1998 or 2000.[4]

*2.3 Measures of the resources available to children*

The approach followed in this paper is to focus on measures of the resources available to children. This choice is in part driven by data availability but also reflects a notion that this is the sensible place to begin any analysis of child poverty. We begin by looking at income measures: market income (labour and capital earnings) received by children's households, and net income, after taxes and transfers, of those households. Through out, we deflate resources to account for differences in prices and needs, as will be discussed below. After a preliminary investigation of incomes we turn to expenditure as a measure of resources. We do this for two reasons. First, as previously noted, consumption (or expenditure) may be a better indication of household, or individual, well-being. Individuals, or households, may be able to smooth the transitory fluctuations in income over time, thus maintaining household welfare, by saving or borrowing. If we area interested in household, or individual welfare then it is more appropriate to examine the distribution of consumption (expenditure) and thus we examine total household expenditure[5], as well as expenditure on food (at home and in restaurants).

The second issue that we hope to address with expenditure data is that of intrahousehold allocation. Dividing income or expenditure by the number of persons in a household, or by some function of that number that allows for increasing returns to scale in consumption (such as our benchmark equivalence scale, the square root of household size), implicitly attributes to each member of the household an equal share of resources. There is no particular reason to think this is the case, though with household expenditure data it is difficult to do otherwise.[6] The one avenue open to us is to attempt to

identify and examine goods that are solely consumed by particular members of the household. In the case of children, the best candidate for the expenditures, we believe, which are 'most directed' at children are expenditures on food and particularly, expenditures on children's clothing.[7] Given the difficulty of dealing with intra-household allocation issues empirically we assume that all resources are shared equally by household members or by all children in the case of children's clothing.

*2.4 Adjusting for differences in prices and needs*

Children live in households which face different prices (across time and region). They also live in households that have different demographic composition, and thus can be reasonably assumed to have different needs. The traditional way to adjust for these differences is with price indices and equivalence scales.

Our base price index is a regional Stone Price index. That is, we take a mean-budget share weighted geometric average of all the price indexes for goods in our total expenditure bundle. The good specific price indices are also region specific, with Ontario 1992 as the base. Relative to the CPI, which is the most commonly used deflator and is an arithmetic mean, our geometric mean price index allows from greater substitution. It also takes account of regional differences in base period prices and in inflation, which the national CPI does not. Relative to price indices estimated via a demand system (such as Pendakur (2001)), our price index imposes homotheticity - since mean budget shares are used as the weights, inflation has the same effect on rich and poor.

Our benchmark adjustment for differences in needs is to divide by the square root of household size, a standard, midrange, equivalent scale commonly used in the literature. An alternative approach to adjusting expenditures for prices and needs is to estimate a demand system and back out price and demographic deflators from the estimates. This is the procedure followed by Slesnick (1993) and Pendakur (2001). This integration of consumer theory and welfare economics with poverty analysis is theoretically very attractive, but, for several reasons we do not pursue it here.

First there are convincing arguments, summarized for example by Phipps (1999), that the standard utility maximization approach is inappropriate in the case of children. Principal among these arguments are the very reasonable suggestions that children's preferences are in the process of being formed and so can in no sense be taken as "given", and that children do not exercise choice over the allocation of resources in the way that standard theory conceives. Thus, to estimate a household demand system would seem to be incongruous with our objective of keeping children as the unit of analysis (as opposed to the parents of children or households containing children).

Second, while demand analysis is sufficient to identify theoretically coherent price indices, this is not the case for equivalence scales. As first emphasized by Pollack and Wales (1979) equivalence scales are not identified by information on demands alone; further assumptions are required. Researchers have made different assumptions to identify equivalence scales. Some identification schemes have been heavily criticized (again see Triest's (1998) discussion of the work of Jorgensen and Slesnick). Pendakur (2001) uses the apparently innocuous assumption that equivalence scales are "base independent" meaning that they are the same for rich and poor.

As has been pointed out by Browning (1992) and Donaldson and Pendakur (2002), base independence seems unlikely on a priori grounds. For example, if any goods that are consumed only by households with children are either luxuries or necessities (which seems likely), then adding a child to a childless household must have different costs for rich and poor. Indeed it turns out that while equivalence scales cannot be identified by demand data alone, base independence can be tested on demand data. Most tests of base independence reject. Pendakur (1999) presents semi-parametric test of base independence. He does not reject base independence of equivalence scales between households with different (positive) numbers of children or among childless households of different size. However, crucially, he does reject base independence of equivalence scales between household that do and do not have children. This is crucial for us because we wish to define child poverty with respect to the consumption or income levels of

the entire population (including adults living in households without children).

*2.5 Measures of Poverty and Distribution.*

Although there are a plethora of poverty and inequality measures available to researchers, for tractability, we have reported only a selected few. First, poverty measures of the Foster, Greer and Thorbecke (1984) class are presented. FGT(0), the headcount ratio or poverty rate. FGT(1) is the average normalised poverty gap, an indication of the depth of poverty. FGT(2) is the mean squared poverty gap. The FGT(a) measures are decomposable, which is the basis of our dis-aggregate analysis in Section 5. We then capture changes in the entire distribution by reporting the $10^{th}$, $25^{th}$, $50^{th}$, $75^{th}$ and $90^{th}$ percentiles in each year.

Finally, two measures of inequality are presented, the Gini coefficient and the Atkinson index. These measures are consistent with social welfare functions, satisfy the 'principle of transfers' (transferring income from a richer to a poorer person will increase social welfare; as long as the transfer is not large enough to reverse the individuals relative standings (Deaton, 1997)), and are commonly cited in the literature. Only one Atkinson index A(e) is reported: A(2). The more positive 'e' (the 'inequality aversion parameter) the more sensitive A(e) is to differences at the bottom of the distribution. The Gini coefficient is most sensitive to differences in the middle of the distribution.

Implementing poverty measures - including the FGT poverty measures that we employ, requires the definition of poverty line. Several 'poverty lines' have been used in the literature; 0.5*equivalent median income, a relative measure, is a common choice and we have adapted it as well for our 'base analysis'. The merits of relative and absolute poverty lines have been discussed at length elsewhere, and we do not repeat them here. However, as we shall document below, the relative stability of median resources over the study period means that the choice between an absolute and relative poverty line is largely immaterial.

# 3. THE ECONOMIC RESOURCES AVAILABLE TO CHILDREN

## *3.1 Flows of Income and Consumption*

We begin, in Table 1, by looking at estimates of child poverty in Canada in 1986, 1992, 1996, 1998, and 2000. We present estimates that differ in the flow measure of resources employed. In particular, Table 1 compares private income, net income and total expenditure. Private income is pre taxes and transfers, and is largely a measure of labour market earnings. Net income is post taxes and transfers, and is a measure of resources available to members of a household from both the labour market and social transfers.

As noted in Section 2, all calculations are for the population of children, which is constructed by taking only households with children and weighting by Statistics Canada's survey weights multiplied by the number of children in household. We also note again that 1996 differs from the other years in that a child is defined as 15 years or younger, rather than 17 years or younger. Each child's equivalent income or expenditure is calculated by dividing the income or expenditure of the household by an equivalence scale which is the square root of household size, and by the regional Stone Price index described in Section 2.

The first five columns of Table 1 deal with private income. The results are divided into three panels. Going from top to bottom we first present poverty measures, then a series of quantiles which reveal what was happening to the entire distribution, and finally, in the bottom panel we present inequality measures.

Starting with poverty measures, Table 1 presents the poverty rate (FGT(0)), the mean poverty gap (FGT(1)) and the mean squared poverty gap (FGT(2)). The poverty line is half the median of the entire population (including adults) for the equivalent resource measure in question. By all three poverty measures, private income poverty among children appears to have risen somewhat between 1986 and 1998 and then decreased slightly by 2000. However, on the basis of income before taxes and transfers,

there was both greater incidence and intensity of child poverty in 2000 than in 1986.

Turning to the quantiles of the private income distribution, we note a number of features. First, above the median, and particularly above the 75$^{th}$ percentile, there was substantial growth over the study period, largely between 1986 and 1992. Second, the bottom of the private income distribution (the first decile) appears to have collapsed during the mid 1990s, with some recovery by the end of the study period. The mean and median of the distribution were fairly stable as the distribution spread (the median grew by 6% over 14 years). Thus the increase in poverty (in terms of private income) was driven largely by the collapse of private income in the bottom decile, rather than any substantial growth at the median.

Finally the Gini coefficient picks up the increasing inequality between 1986 and 1992 as the top of the distribution pulls away. The A(2) Atkinson index which is much more sensitive to the bottom of the distribution does not reflect this pattern.

The next five columns of Table 1 report a parallel analysis of net income. Unsurprisingly, there is considerably less child poverty when net, rather than private incomes are considered. The tax and transfer system do redistribute. Between 1986 and 1998, there is an increase in child poverty, as measured by net income, as there was with private income. However, the increase seems to come later in the study period. Moreover, unlike child poverty measured by private income, child poverty measured by net income then settles back to 1986 levels in 2000.

When we examine quantiles of the distribution of net income we see that, as with private income, the mean and median of the distribution are quite stable (for example the median grew by less than 4% over 14 years). However, we see neither the pulling away of the top of the distribution nor the collapse of the bottom of the distribution that were observed in private income. Presumably the tax and transfer system absorbed much of these movements. Both the Gini and A(2) Atkinson indices indicate a slight increase in inequality in the distribution of equivalent net income among children.

Finally, the last 5 columns of Table 1 repeat the analysis for total expenditure. As is common, we find substantially less consumption poverty than income poverty. This likely reflects, at least in part, the ability of households to move resources through time by borrowing and saving and to access private and often informal systems of support.

When we turn to changes over the study period we see a small decline in both consumption poverty and inequality among children between 1986 and 1998 and then an increase into 2000. This contrasts with the small rise and then decline we see for net income. We also note that the distribution of expenditures is remarkably stable. None of the reported quantiles moved by more than 5% over the 14 year period and the largest changes were declines at the top of the distribution.

Our finding also contrasts with Pendakur (2001) who finds a rise in consumption poverty among children between of 1986 and 1998 which is of about the same magnitude as the decline which we report.[8]

A reasonable question is whether the improvement we observe between 1986 and 1998 might reflect only a business cycle effect, as the aggregate unemployment rate was somewhat lower in the 1998, and it arguably was closer to the peak of the business cycle (See footnote 3). However, both Pendakur (2001) and ourselves find that consumption poverty among children was at it its lowest in 1992 - the trough of the business cycle and we find that poverty rates increased in 2000 even as the unemployment rate decreased.

In constructing total consumption an important question is what to do about housing. Housing expenditures may not be closely related to consumption of housing services. Rental payments are observed for household that rent, but regulation and imperfections in rental markets mean that these payments are not necessarily closely tied to the amounts of services consumed. For owners, the situation is even worse. The data contain information on mortgage payments and property taxes, as well as repair costs. Property taxes may be only loosely related to the consumption of housing services. Differences in mortgage payments may reflect differences in interest rates or loan parameters which are unrelated to the

quantity of services consumed. Moreover, it is certainly not the case that mortgage free owner-occupiers are forgoing housing services. A user cost approach is an alternative way to calculate housing expenditures of owners. However, when house prices are rising quickly and real interest rates are low, the user cost of housing – and hence the implied housing expenditures - can be negative. This is not an uncommon occurrence (see for example Crawford, 1994). It is certainly not the case that owners cease to benefit from housing services in these situations. Instead we follow Pendakur (1998) and use simple regressions to impute the rent for all households (owners and renters). Imputed rents are based on a very small number of characteristics. As we shall see, a consequence of this may be to hide a considerable amount of inequality.

Table 2 reports a preliminary investigation of these issues. Consumption poverty among children is analyzed in three different ways. The first five columns use imputed rents, and simply repeat the last five columns of Table 1. The next five columns use instead the reported shelter expenditures in the FAMEX and SHS. This includes rental payments for renters, and mortgage payments, taxes and repair expenses for owners. The shortcomings of this measure were discussed above, but it is reported here for illustrative purposes. Finally the last five columns repeat the analysis with housing simply excluded from the consumption measure (effectively, this is 'nondurable consumption'). The results indicate that consumption including imputed rents exhibits significantly less poverty and inequality than the other two measures, and particularly less than nondurable consumption. Moreover, the slight decrease in consumption poverty rates between 1986 and 1998 that we reported in Table 1 is not evident for either of the alternative consumption measures. Clearly, the measurement of the consumption of housing services warrants further investigation.

*3.2. Material deprivation*

There are several reasons to look at children's access to specific goods. First, it may be (as Mayer and Jencks, 1989 suggest), that some portion of society cares more about the access of children to

"necessities" such as adequate food, clothing, and housing, than to resources in general. Second, the analyses of resource flows, in the previous subsection, necessarily assume that equivalent resources are equalized within the household. By focusing on goods and services of particular relevance to children (for example children's clothing) we can get some idea of whether this assumption may be hiding important developments.

In this subsection, we use the FAMEX and SHS to examine the distribution of equivalent food expenditures and children's clothing expenditures. We then use the HFE and SHS to examine the distribution of housing conditions and durables stocks across children.

Table 3 presents an analysis of food expenditures and Table 4 expenditures on children's clothing. Food expenditure includes both food at home and food in restaurants. As in the previous section we present poverty measures, quantiles of the distribution and inequality measures, among the population of children. The analysis of food expenditures is reported for each of the years 1986, 1992, 1996, 1998 and 2000. Unfortunately data on expenditures on children's clothing are not available after 1996.

In examining expenditures on individual goods, it is necessary to revisit the questions of equivalence scales and price indices. When examining total expenditure and income we use our 'base' equivalence scale, which is a concave function of household size. This is intended to capture the idea that there are returns to scale in consumption flowing in part from the fact that some goods, such as housing and heating, have the nature of a public good within the household. With individual goods, its less clear, particularly when such goods are largely private in nature. Food seems largely private (what one child eats another cannot), and some researchers have treated it as entirely private (Deaton and Case, 1998, for example) though there may be some economies of scale in the production of meals. Similarly, clothing is private, in the sense that what one child wears another cannot, but many large families would realize some economies of scale in clothing through "hand-me-downs", especially if children are of the same gender. For these reasons we present two analyses in each of Tables 3 and 4. The first uses our 'base'

equivalence scale (the square root of household size), while the second uses a per capita measure of expenditures. Note that for per capita food expenditures we divide by the number of persons in the household (including adults) while for per capita children's clothing we divide by the number of children. With respect to price indices, we deflate food and clothing expenditures by regional good-specific price indices**.**

Analyses of material hardship (for example, Mayer and Jencks, 1989) often compare food expenditures to a minimum standard, such as the "thrifty budget" published by the U.S. Department of Agriculture. Historically, no widely accepted costing of a nutritional standard has been available for Canada.[9] Instead when we consider food expenditures in Table 3 we continue to define poverty relatively. Food poverty is defined as experiencing half the median equivalent expenditure on food (where the median refers to the entire distribution, including adults). We also document the quantiles of equivalent food expenditure distribution for children and same two inequality indices as were reported in the previous section.

Table 3 shows that, so defined, food poverty is both slightly more prevalent and slightly more intense than total expenditure poverty. There is also slightly more inequality in food expenditure than in total expenditure. This surprised us. As food is a necessity we expected it to be more equally distributed than total expenditure. Note however, it is more equally distributed than - and also exhibits less poverty than - our total expenditure measure that excludes housing expenditures (the furthest right panel of Table 2). This once again emphasizes the potentially important role of rental imputation in masking inequality in consumption. The rate and intensity of food poverty is sensitive to the choice of equivalence scale, with more poverty apparent when per capita expenditures are considered.

Table 3 suggests, perhaps, a very small increase in the rate of food poverty among children over the study period; the evidence on intensity is mixed. An examination of the mean and quantiles shows that the entire distribution of equivalent food expenditures seems to have shifted down over the study

period. These trends are not sensitive to choice of equivalence scale.

Table 4 performs a similar analysis of expenditures on children's clothing. As noted previously we only have data until 1996. We define the poverty line slightly differently here, as half the median expenditure among children. Thus 'child clothing poverty' is defined relative only to other children, whereas income, total expenditure and food poverty were defined relative to the entire population. The reason for this is that most households without children have zero expenditures on children's clothing, so that including them in the calculation of the median would lead to the result that almost no children were "children's clothing poor" but adults that lived in childless households were "poor" by this measure. Obviously, this does not make sense.

The most striking feature of Table 4 is that there is a great deal of inequality in equivalent expenditures on children's clothing. The distribution of children's clothing expenditure is much more disperse than the total expenditure distribution - even when total expenditure excludes housing. This suggests that children's clothing is a luxury (as adult clothing certainly is). It may be difficult to interpret, therefore, as a measure of material hardship. On the other hand, the literature evolving around social inclusion may lead us to believe that for children to be included in their social networks the type of clothing purchased for children may be very important due to peer pressure and acceptance (for example, a child must wear the right brands of clothing to be accepted in the 'in crowd'). This is a topic for future research.

Tables 5 and 6 switch from the expenditure measure of the FAMEX and SHS to measures of stocks available in the HFE and SHS. Table 5 reports the housing conditions that Canadian children experienced in 1985, 1993, 1996, 1998, and 2000 and Table 6 reports the durables they had access to, for the same years.

Table 5 suggests that the distribution of housing conditions was very stable over the study period. Between 1985 and 2000, the number of children who lived 'crowded' accommodations (less than one

room per person in the household) declined slightly from 15.4% to 12.0%. The (somewhat larger) fraction of children who shared a bedroom also declined. Relative to 1993, the fraction of children in housing that required major repairs was about two percentage points lower in 2000, but the fraction of children in housing that required minor repairs increased by almost 12 percentage points.

Finally Table 6 reports on durables stocks. There are some big changes here - for example, the fraction of children living in a household with a VCR rose from 49% to 97% between 1985 and 2000, and the fraction with a microwave oven from 43% to 96.5% over the same period. While these changes may represent the diffusion of technology and falling prices, they may be important in the context of social inclusion. In 2000 the percentage of children without a family car was almost identical to that of 1986 at 9.2%.

## 4. SENSITIVITY ANALYSES

In this section we consider the sensitivity of our poverty estimates to some of our measurement choices. In particular we consider the choice of equivalence scale, price index and poverty line. Throughout we use our 'base' resource measure, total expenditure including imputed rents. We investigate our choices one at a time, so that when we vary the price index, for example, we use the 'base' equivalence scale and poverty line of the previous section.

In Table 7 we investigate different poverty lines. In all the proceeding analyses we employed a common 'relative' poverty line - half the median of equivalent resources (where median refers to the whole population, not just children). Table 7 compares poverty estimates using this poverty line with those generated by two other poverty lines. The first alternative we consider is to treat half the median of equivalent resources in 1986 as an absolute poverty line. The second is the absolute poverty line used by Pendakur (2001) (which in turn was derived from Sarlo, 1996).

The bottom line is that neither of these alternatives makes very much difference. The levels of

poverty are very similar to what we estimated with a half median (relative) poverty line. With respect to trend, the small improvement in child poverty that we observed to 1998 with half median (relative) poverty line is diminished when we use a absolute poverty line and the rise in poverty rates in 2000 is slightly exacerbated.

Of course the reason that the choice of poverty line appears to make so little difference is that median equivalent resources barely moved between 1986 and 2000. As Table 1 illustrated, median equivalent real total expenditure among children actually fell slightly from $1231/ month to $1197/month. Obviously, in a period of substantial real growth in resources the choice between a relative and absolute poverty line would have considerably more consequence. We also note here that the choice of poverty line does not explain why Pendakur finds slightly rising consumption poverty between 1986 and 1998 and we find slightly falling child poverty over the same period. The source of the discrepancy must lie elsewhere.

We next turn our attention to equivalence scales and price indices. The three alternatives that we consider are the OECD equivalence scale (1.0 + 0.7*[# adults-1] + 0.5*[# of children]), the equivalence scale estimated by Pendakur (2001) ([# adults+0.91*[# of children]]$^{0.42}$ ), and household size (which results in per capita expenditure). The OECD equivalence scale is. The Pendakur equivalence scale is.

Table 8 illustrates that working with per capita total expenditure leads to substantially higher estimates of child poverty (around 11% rather than 5% in 2000) and a slight increase in child poverty over the entire period of the study. The OECD measure makes little difference and the Pendakur equivalence scale consistently gives the lowest poverty estimates (3% versus 5% in 2000).

Table 9 presents a similar analysis of alternative price indices. As elaborated in Section 2 our base price index is a regional Stone Price index. That is, we take a mean-budget share weighted geometric average of all the price indexes for goods in our total expenditure bundle. The good specific price indices are also region specific, with Ontario 1992 as the base.

To investigate these issues, we consider three alternative price indices. The first is the national CPI, which as noted above is the most commonly used deflator in poverty studies. Second is a national version of the Stone Price index. This is a geometric mean weighted by mean budget shares (as is our base case) but it does not take account of regional differences in price levels in the base year or in inflation. Thus comparison of the regional and national Stone Price index isolates the effect of accounting for or ignoring regional differences in prices and inflation, while a comparison of the national Stone Price index with the CPI illustrates the impact of choosing a geometric rather than arithmetic mean. Finally to explore the consequences of allowing price changes to affect rich and poor differently (that is, to explore the consequences of the fact that rich and poor have different spending patterns) we recalculated the regional Stone Price index separately for each quintile of the adjusted expenditure distribution. That is, for each region and quintile we created a separate index by weighting the region specific prices by the mean budget shares of children in that region and expenditure quintile. This is obviously cruder than approach followed by Pendakur (2001), but it does relax the assumption of homotheticity and does not require estimation of a demand system.

Table 9 illustrates that these choices do matter for poverty levels. The national Stone Price index and CPI are very close, but allowing for regional differences in prices (as we do in our 'base' price index) appears to lead to slightly lower estimates of child poverty. Allowing for differences in the spending patterns of rich and poor leads to estimates of child poverty that are lower still. The magnitudes of these differences seem to vary somewhat from year to year, but the overall trend over the study period seems unaffected by choice of price indices. In all cases we see a small decrease in child poverty between 1986 and 1998 and an increase in 2000.

## 5. DIS-AGGREGATED ANALYSIS AND SOCIOECONOMIC DEVELOPMENTS

### *5.1. Background*

Although the statistics on child poverty in Canada indicate that child poverty did not diminish, over the period in question, the situation could have been worse. Poverty trends, according to some researchers, have been ameliorated by recent demographic shifts. The majority of poor children have young parents. The declining labour force participation rates of young adults, particularly males, would have resulted in considerably higher child poverty rates had families not altered fertility patterns and work habits. Families postponed childbearing, had smaller families, had more members working, and worked more hours (Dooley, 1994; Picot and Myles 1996).

However, Zyblock (1996) alleges that family demographic shifts actually exacerbated the problem. Eighteen percent of children under the age of 18 lived in poverty in 1992[10] , virtually the same rate as 1975. The rates of poverty within lone- and two-parent families fell during the period but the number of lone-parent families increased. Given the rate of poverty within lone-parent families was 4.9 and 5.1 times that of two-parent families in 1975 and 1992, respectively the lower risk of living in poverty within a given family type was offset by the increase in the proportion of children living in lone-parent families (see also Dooley, 1994; Hatfield, 1996).

To investigate these issues we carried out a series of decomposition analyses. In particular, we partition the population of children into groups and then examine how changes in within-group poverty, and changes in the composition of the population (that is, the share in each group) contribute to the overall development of child poverty between 1986 and 1998; we compare 1986 to 1998 because they are at points more similar in the business cycle than 1986 and 2000. The first partitions we consider are demographic: region of residence, age of head of household, and family type. We then examine the labour force activity of adults in the household. This is done separately for children in lone parent and two parent families.

Throughout we use our base resource measure (expenditure, including imputed rent, adjusted by the square root of household size and a regional Stone Price index) and base poverty line (half of the

median of adjusted expenditures of the full population). Some of the issues we address were considered by the authors noted above, but not with a consumption based poverty measure or for the most recent years covered by our analysis.

*5.2 Demographics*

We begin with Table 10 which documents child poverty in five regions of Canada: the Atlantic Provinces (Newfoundland, Nova Scotia, New Brunswick and Prince Edward Island), Quebec, Ontario, the Prairies (Manitoba, Saskatchewan and Alberta) and British Columbia.[11] The first column of Table 10 gives the share of the child population in each region in 1986. Ontario and Quebec are much larger than the other regions. The second column of the table gives poverty measures for each region. The table is divided into three panels, each reporting a poverty measure in the FGT class. The top panel reports the poverty rate (FGT(0)), the middle panel the mean poverty gap (FGT(1)) and the bottom panel the mean squared normalized poverty gap (FGT(2)). The table illustrates that there were large regional differences in child poverty in 1986. By all three measures poverty was substantially higher in the Atlantic provinces.

The third and fourth columns of Table 10 report the regional shares and poverty measures for 1998. The fifth and sixth columns report the changes in shares and poverty by region. The shares of children in Ontario and in British Columbia rose over this period, and the shares of the other regions declined. By any measure poverty decreased in every region except the prairies, where it rose.

The final four columns of Table 10 decompose the change in child poverty between 1986 and 1998 into that part which can be attributed to changes in the shares of the regions, that part which can be attributed to changes in poverty within the regions, and a residual. The growth of Ontario, which had above average child poverty, tended to increase poverty nationally, while the declining share of the Atlantic region (which has the highest level of poverty) worked in the opposite direction. Overall, the changing regional makeup of the child population had little impact on poverty levels, regardless of whether it was measured by rate, mean gap or mean squared gap. Instead, the decomposition suggests that

the small national decline in child poverty between 1986 and 1998 was driven by declines in child poverty in Ontario and Quebec. Because of the large size of these regions, these declines more than offset a rise in child poverty in the prairies which was of a similar magnitude.

Table 11 reports a similar analysis, with the population of children partitioned by age of household head rather than region. The layout of the table is analogous to Table 10. It reveals that poverty is much more severe among children whose household is headed by a very young person (under 25 years of age) or an older person (over 55 years of age). Indeed in 1986 the rate of poverty among such children was more than three times that among children in a household headed by a person between 25 and 55 years of age. The share of children in these high risk groups declined between 1986 and 1998, and the experience of poverty in both these groups declined significantly over that period. If the overall poverty change is decomposed among groups defined by age of household head, both changes in the composition of the population and changes in within group poverty contribute to the small overall decrease in poverty (in particular the decline in the share of children with relatively young or relatively old parents, and the decline in poverty among such children). The experience of poverty among children with household heads between 25 and 55 was largely unchanged, rising or falling slightly depending on the poverty measure used.

Table 12 reports a similar analysis for family type, and is laid out in the same way as the previous two Tables. We consider three family types: children living with couples, children living with lone parents, and children living in families denoted “other”. The other category includes situations like a lone mother with a child living with her parents or an extended family member, a grandparent for example living with the family.

Unsurprisingly, Table 12 shows that there is little poverty among children living with couples. This group included 85% of children in 1986. There was even less poverty - by any measure - among the households in the “other” category. Poverty is concentrated among children living with lone parents. This

group represented 11% of children in 1986 and had a poverty rate of almost 18%. The mean poverty gap and mean squared poverty gap of this group was also much higher than the other groups.

Looking at the changes, we see that by any measure poverty fell among children living with couples and children living with a lone parent. The reduction in the poverty rate of the latter group - from almost 18% to 12% is particularly striking. Poverty rose however, among the "other" group. This may be an indicator that poor families are having to resort to alternative living arrangements rather than parent(s) and child households.

In terms of contributions to the overall change in child poverty, the decomposition indicates that the decreases in poverty among children living with couples and children living with a lone parent lead to substantial decreases in overall child poverty. Although the change was larger in the 'lone parent' group, the 'couple' group is much larger so that the contributions to the overall change are approximately equal in terms of the poverty rate (and the change in the 'couple' group is more important in the case of the mean poverty gap and mean squared poverty gap).

These improvements were offset by two factors: the rise in the share of children living with lone parents and the increase in poverty among the "other" group. This finding - that poverty among children with lone parents fell but that, at the same time, a rise in the share of children in such circumstances exacerbated poverty, echoes the findings of Zyblock (1996).

### *5.3 Labour Force Activity of Adult Household Members*

We next consider developments in the labour force activity of the adults that children live with. Table 13 begins by documenting the major source of household income among children in 1985, 1993, 1996, 1998 and 2000. The share of children living in a household with transfer income as its major source of income rose sharply between 1985 and 1993, from 10.8% to 15.9%. Subsequently, that share fell from 1993 to 1996 and again in 1998. It may be that this represents largely a business cycle effect.

We now turn to decompositions. Tables 14 and 15 follow the same layout as Tables 10 through

12. Estimates of the share of the population of children in different groups and estimates of within group poverty are presented for 1986 and 1998. Then changes in shares and within group poverty are reported and finally the overall change in poverty is decomposed into the contributions of changes in shares, changes in within group poverty and a residual. There are three panels, which differ in the poverty measure used. Going from top to bottom they are the poverty rate, the mean poverty gap, and the mean squared poverty gap.

Table 14 focuses on children living with couples. From Table 11 we know that the poverty rate among this group fell 0.7 percentage points, from 2.6% to 1.9% between 1986 and 1998. The mean poverty gap and mean squared poverty gap among this group also fell over the same period. This group is further partitioned into 6 groups, defined by the labour force activity of the parents[12]: (1) both parents worked full year, (2) one parent worked full year and one part year (3) one parent worked full year and the other did not work, (4) both parents worked part year, (5) one parent worked part year and the other did not work, (6) neither parent worked. The largest group is children in households in which one parent worked full year and one part year; the shares of children in household in which both parents worked full year and in households in which one parent worked full year and the other did not work are almost as large. Only about 2% of children living with couples lived in a household in which neither parent worked.

Unsurprisingly, there is enormous variation across these groups in the amount of poverty, and the amount of poverty is more or less decreasing in the amount of labour force activity of the parents. In 1986 the poverty rate was 0.1% among children living in a household in which both parents were present and worked full year. On the other hand, in 1986 the poverty rate was 47% among children living in a household in which both parents were present but neither worked.

The poverty rate among this group fell to 32.3% by 1998, a very large change. Similar large improvements in this group were evident in the mean poverty gap and mean squared poverty gap.

However, because this group was such a small share of the population of children, these improvements had very little impact on overall child poverty.

There appears to have been a decline in the number of children living in households in which both parents were present but only one worked, and an increase, of similar magnitude, in the share of children in households where both parents were present and worked full year. This shift contributed a large part to the reduction of poverty among children living with couples, as did a decline in within group poverty for children living in households in which both parents were present but only one worked.

Table 15 performs a similar analysis for children living with lone parents. Here there are only three subgroups: the parent worked full year, part year or not at all. The Largest groups are the latter two; in both 1986 and 1998 less than 7% of children living with a lone parent experienced that parent working full year.

As in Table 14, there are big differences in poverty across groups defined labour force activity. In the 1986 sample there was no poverty among children living with a lone parent who worked full year (this is based on a small number of observations). However, if the parent worked part year the poverty rate was 2.8% and if the parent did not work it was 37.2%. Both the share of children in this group and the within group poverty for this group fell dramatically by 1998. These two changes essentially drove all the improvement in poverty among children living with a lone parent.

In sum, the analysis suggests that there is something to the idea that socio-demographic changes may have blunted the effect of policy on child poverty in aggregate. When the data are dis-aggregated, numerous 'successes' are apparent. Poverty fell substantially among several high risk groups, such as children living with lone parents or in households headed by a person under 25 or over 55 years of age. In some cases improvements were off set by demographic changes (poverty fell among children living with lone parents, but at the same time, the share of children in this high poverty group rose) or by small increases in the poverty rates of other, larger, groups (poverty rates rose very slightly among children

living in households headed by a person between 25 and 55 years of age, but because this group includes 90% of children, these increases offset improvements among other children).

In other cases, it was simply the case that the group was to small for substantial improvements in within group poverty to make much impact on aggregate child poverty. For example, poverty among children living with a lone parent who did not work at all that year fell by 8 percentage points between 1986 and 1998. However, this group represented less than 5% of children in 1986 so that, had nothing else changed, this would have led to a drop in the aggregate child poverty less than half a percentage point.

In 1986 the poverty rate among children living with a lone parent was 17.7% compared to 2.6% among children living with a couple. At the same time, more than half (52.9%) of poor children lived with couples. This indicates that policies which are tightly targeted on high-risk groups may have large impacts on those groups without having much impact on aggregate outcomes. This is reported only as a matter of fact, and *not* as an argument for or against the tight targeting of poverty policies. It is not obvious that the aggregate child poverty rate should be the only object of policy interest. Indeed the dis-aggregated analysis demonstrates that in 1998 it was still the case that certain groups of children had a very high risk of poverty. This in itself may be an independent policy concern.

## 6. SUMMARY AND CONCLUSIONS

Despite the stated political priority of eliminating child poverty in Canada the recent literature indicates child poverty in Canada has been increasing over time. The failure to meet this national priority poses something of a puzzle, particularly in light of the success of other targeted anti-poverty agenda, such as drastic reduction in poverty among the senior population that had previously been achieved.

The goal of this paper was to take a very detailed look at changes in the resources available to children, particularly less fortunate children, over the decade and a half from 1986 to 2000 using

Canadian micro data. This decade and a half captures the date of the all party motion of parliament to eliminate poverty, several changes in policy addressed at child poverty and the year that child poverty was to be eliminated. By characterizing the distribution of resources over the period, and by considering a range of resource measures we assessed the role of measurement issues in the apparent persistence of child poverty. By decomposing poverty and inequality across different population subgroups, and by examining changes in the income package across the distribution, we evaluated the role of socioeconomic characteristics.

Our findings are as follows. Measured by consumption, the distribution of resources available to children is very stable. Unsurprisingly, poverty and inequality are lower when measured with consumption than when measured with income. Poverty is quite stable across the period using net income or expenditures. Rising child poverty is found if one uses gross income (a dubious measurement choice). However, if we use expenditure on children's clothing, a resource we believe is targeted at the child, we do find increasing inequality and poverty. This is a finding worthy of further investigation, as is the finding that trends in consumption poverty are sensitive to the treatment of housing.

The results of the decompositional analysis, indicate offsetting demographic and socioeconomic shifts. A decease in the poverty rates of children living in lone-parent families is offset by an increase in the proportion of children in this group. Decreases in the poverty rates and shares of `younger' and `older' families is offset by an increase in the share and poverty rate of children living in `middle-aged' families. Thus socio-demographic changes may account for some of the lack of decline in poverty rates.

Importantly, by no measure do we see any improvements in child poverty. Thus we still have the "puzzle" given the stated policy priority. This results seems robust to alternative measurement approaches and while socioeconomic shifts may be part of the story our dis-aggregate analysis suggests that they cannot be the entire story. If the persistence of child poverty in Canada cannot be attributed to measurement or to socioeconomic developments, then the third class of explanations are those to do with

policy. Policies may be poorly designed, poorly targeted, of inadequate scale, or have their impact mitigated by coincident offsetting changes in other policies. This is an important topic for future research.

**REFERENCES**

Browning, M., (1992). "Children and Household Economic Behavior." *Journal of Economic Literature*, vol. 30, pp.1434-1475.

Crawford, I., (1994) "U.K. Household Cost -of-Living Indices, 1979-92." *Fiscal Studies*, 15(4):1-28.

Curtis, Lori J., Martin D. Dooley, Ellen L. Lipman and David H. Feeny (2001). "The Role of Permanent Income and Family Structure in the Determination of Child Health in Canada" *Health Economics* (10):287-302.

Cutler, David, M. and Lawrence F. Katz, (1991). "Macroeconomic Performance and the Disadvantaged." *Brookings Papers on Economic Activity*, 1991(2):1-61.

Deaton, A., (1997). The Analysis of Household Surveys. The Johns Hopkins University Press, Baltimore, Maryland.

Deaton, A. and Paxson, C. (1998). "Economies of Scale, Household Size, and the Demand for Food." *Journal of Political Economy*. 106(5):897-930.

Donaldson, David and Krishna Pendakur. (2002). "Equivalent Expenditure Functions and Expenditure-Dependent Equivalence Scales." *Journal of Public Economics*, forthcoming.

Dooley, M.D. (1994) "Women, Children and Poverty in Canada." *Canadian Public Policy*, XX(4):430-443.

Dooley, M.D., L. Curtis, E. Lipman and D. Feeny, (1998). "Child Health And Family Socioeconomic Status." *Policy Options*, September: 13-18.

Dooley, M., P. Merrigan and P. Lefevre ., (2000). "Lone Female Headship and Welfare Policy in Canada." *Journal of Human Resources*. 35(3):587-602.

Foster, J.E., Greer, J., and Thorbecke, E., (1984). "A class of decomposable poverty indices", *Econometrica,* 52, 761-766.

Hatfield, Michael (1996) "Why are Never-Married Lone-Mothers of Pre-School Children More Likely to be disadvantaged." Mimeo, Applied Research Branch, Human Resources Development Canada.

Jorgenson, D.W., (1998). "Did we lose the war on poverty?" *Journal of Economic Perspectives*. 12(1):79-96.

Kamerman, Sheila, B. and Alfred J. Kahn (1997) Family Change and Family Policies in Great Britain, Canada, New Zealand and The United States, Oxford University Press, New York

Mayer, Susan E., (1993). "Living conditions among the poor in four rich countries." *Journal of Population Economics,* 6(3):261-86.

Mayer, Susan E., (1997). What Money Can't Buy Cambridge: Harvard University Press

Mayer, S. E. and C. Jencks, (1989). "Poverty and the distribution of material hardship." *Journal of Human Resources*, 24(1):88-114.

Myles, John and Garnett Picot, (2000). "Poverty Indices and Poverty Analysis." *Review of Income and Wealth*, 46(2):161-179.

Osberg, L., (2000). "Poverty in Canada and the United States: Measurement, Trends, and Implications." *Canadian Journal of Economics*, 33(4): 847-77

Pendakur, Krishna, (1998). "Changes in Canadian Family Income and Family Consumption Inequality Between 1978 and 1992". *Review of Income and Wealth*, 44(2):259-283.

Pendakur, Krishna, (1999). "Semiparametric estimates and tests of base-independent equivalence scales." *Journal of Econometrics*, 88:1-40.

Pendakur, Krishna, (2001). "Consumption Poverty in Canada,1969-1998." *Canadian Public Policy,* 17(2):

Phipps, Shelley, (1999). "Economics and the well-being of Canadian children." *Canadian Journal of Economics* 32(5):1135-63

Phipps, Shelley, (1995). "Canadian Child Benefits: Behavioural Consequences and Income Adequacy." *Canadian Public Policy*, XXI(1):20-30.

Picot, Garnet and John Myles (1996). "Social Transfers, Changing Family Structure and Low Income Among Children." *Canadian Public Policy*, XXII:(3):244-67.

Pollak, R. and Wales, T., (1979). "Welfare Comparison and Equivalence Scales." *American Economic Review*, 69, (*papers and proceedings*), 216-21.

Sarlo, C.A., (1996). Poverty in Canada. 2nd Ed. Vancouver, British Columbia: the Fraser Institute.

Sen, Amartya, (1992). *Inequality Re-examined.* Cambridge: Harvard University Press.

Slesnick, Daniel, (1993). "Gaining Ground: Poverty in the Postwar United States." *Journal of Political Economy*, 101,1-38.

Stroick, Sharon and Jane Jenson (1998) "What is the Best Policy Mix for Canada's Children?" CPRN Study 09, Canadian Policy Research Network Inc.

Triest, Robert K., (1998). "Has Poverty Gotten Worse?" *Journal of Economic Perspectives*, 12(1):97-114.

Zyblock, Myles (1996) "Child Poverty Trends in Canada: Exploring Depth and Incidence from a Total Money Income Perspective, 1975 to 1992," Human Resources Development Canada, June.

TABLE 1: Incomes and Expenditures[1]

| | Private Income[2] | | | | | Net Income[3] | | | | | Total Expenditure[4] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| **Poverty** | | | | | | | | | | | | | | | |
| %<0.5* median[5] | 0.199 | 0.236 | 0.224 | 0.229 | 0.225 | 0.124 | 0.124 | 0.137 | 0.143 | 0.124 | 0.042 | 0.022 | 0.049 | 0.036 | 0.043 |
| FGT(1) | 0.115 | 0.152 | 0.143 | 0.139 | 0.123 | 0.029 | 0.025 | 0.034 | 0.033 | 0.030 | 0.0056 | 0.0023 | 0.0051 | 0.0041 | 0.0047 |
| FGT(2) | 0.091 | 0.127 | 0.120 | 0.113 | 0.096 | 0.009 | 0.007 | 0.011 | 0.011 | 0.010 | 0.0011 | 0.0004 | 0.0009 | 0.0008 | 0.0010 |
| **Distribution** | | | | | | | | | | | | | | | |
| 10% | 423 | 144 | 177 | 269 | 370 | 835 | 862 | 830 | 815 | 858 | 762 | 789 | 788 | 775 | 748 |
| 25% | 1192 | 1063 | 1172 | 1095 | 1100 | 1247 | 1251 | 1303 | 1239 | 1211 | 981 | 968 | 989 | 951 | 951 |
| Median | 1859 | 1925 | 2041 | 1933 | 1972 | 1699 | 1710 | 1819 | 1728 | 1760 | 1231 | 1203 | 1286 | 1193 | 1197 |
| Mean | 1938 | 1985 | 2090 | 2016 | 2086 | 1778 | 1827 | 1911 | 1819 | 1864 | 1287 | 1260 | 1321 | 1234 | 1247 |
| 75% | 2673 | 2770 | 2872 | 2814 | 2871 | 2231 | 2286 | 2383 | 2291 | 2325 | 1542 | 1506 | 1584 | 1464 | 1488 |
| 90% | 3343 | 3730 | 3862 | 3717 | 3933 | 2748 | 2903 | 3049 | 2898 | 3050 | 1863 | 1831 | 1919 | 1776 | 1821 |
| **Inequality** | | | | | | | | | | | | | | | |
| Gini | 0.326 | 0.369 | 0.360 | 0.362 | 0.360 | 0.236 | 0.239 | 0.247 | 0.246 | 0.254 | 0.187 | 0.176 | 0.185 | 0.176 | 0.185 |
| A(2) | 0.888 | 0.878 | 0.715 | 0.752 | 0.676 | 0.186 | 0.185 | 0.208 | 0.203 | 0.210 | 0.110 | 0.094 | 0.107 | 0.097 | 0.106 |

1 1986 to 1996 Family Expenditure Survey (FAMEX), 1997 Survey of Household Spending (SHS), Monthly 1992 dollars. Equivalence scale - square root of household size. Reweighted by (households weights * # of children in household).
2 Equivalent Earned Income.
3 Equivalent Income after taxes and transfers.
4 Equivalent Total household expenditure
5 In all cases we compare to the median of the *complete* population, weighted by household weights.

TABLE 2: Total Expenditure[1] with Alternative Measures of Housing Expenditure

| | Estimated Rents (Base Case) | | | | | Shelter Expenditure from Famex | | | | | No Housing in Expenditure | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| **Poverty** | | | | | | | | | | | | | | | |
| %<0.5* median[2] | 0.042 | 0.022 | 0.049 | 0.036 | 0.043 | 0.053 | 0.041 | 0.053 | 0.054 | 0.061 | 0.080 | 0.069 | 0.094 | 0.080 | 0.087 |
| FGT(1) | 0.0056 | 0.0023 | 0.0051 | 0.0041 | 0.0047 | 0.0092 | 0.0045 | 0.0062 | 0.0079 | 0.0100 | 0.0164 | 0.0103 | 0.0209 | 0.0155 | 0.0172 |
| FGT(2) | 0.0011 | 0.0004 | 0.0009 | 0.0008 | 0.0010 | 0.0026 | 0.0009 | 0.0013 | 0.0019 | 0.0025 | 0.0052 | 0.0027 | 0.0067 | 0.0047 | 0.0053 |
| **Distribution** | | | | | | | | | | | | | | | |
| 10% | 762 | 789 | 788 | 775 | 748 | 780 | 821 | 785 | 800 | 795 | 529 | 522 | 479 | 489 | 467 |
| 25% | 981 | 968 | 989 | 951 | 951 | 1014 | 1042 | 1027 | 1043 | 1033 | 719 | 696 | 667 | 648 | 634 |
| Median | 1231 | 1203 | 1286 | 1193 | 1197 | 1307 | 1332 | 1335 | 1354 | 1344 | 949 | 916 | 917 | 858 | 845 |
| Mean | 1287 | 1260 | 1321 | 1234 | 1247 | 1361 | 1399 | 1380 | 1403 | 1411 | 990 | 967 | 950 | 904 | 896 |
| 75% | 1542 | 1506 | 1584 | 1464 | 1488 | 1658 | 1696 | 1674 | 1695 | 1731 | 1218 | 1199 | 1172 | 1110 | 1110 |
| 90% | 1863 | 1831 | 1919 | 1776 | 1821 | 2004 | 2065 | 2048 | 2094 | 2128 | 1502 | 1497 | 1498 | 1393 | 1401 |
| **Inequality** | | | | | | | | | | | | | | | |
| Gini | 0.187 | 0.176 | 0.185 | 0.176 | 0.185 | 0.197 | 0.192 | 0.195 | 0.197 | 0.205 | 0.218 | 0.214 | 0.227 | 0.216 | 0.226 |
| A(2) | 0.110 | 0.094 | 0.107 | 0.097 | 0.106 | 0.128 | 0.115 | 0.121 | 0.125 | 0.135 | 0.159 | 0.146 | 0.175 | 0.155 | 0.167 |

1 Monthly 1992 dollars divided by alternative equivalence scales. Reweighted by (households weights * # of children in household)
2 In all cases we compare to the median of the *complete* population, weighted by household weights.

TABLE 3: Material Hardship - Expenditure on Food[1]

| | Equivalent Expenditure on Food (/sqrt(hhsize)) | | | | | Per Capita Expenditure on Food (/hhsize) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| Poverty | | | | | | | | | | |
| %<0.5* median[2] | 0.049 | 0.049 | 0.067 | 0.053 | 0.054 | 0.083 | 0.073 | 0.103 | 0.099 | 0.097 |
| FGT(1) | 0.0105 | 0.0101 | 0.0135 | 0.0095 | 0.0104 | 0.0171 | 0.0141 | 0.0207 | 0.0179 | 0.0190 |
| FGT(2) | 0.0035 | 0.0032 | 0.0045 | 0.0028 | 0.0032 | 0.0058 | 0.0044 | 0.0069 | 0.0054 | 0.0061 |
| Distribution | | | | | | | | | | |
| 10% | 177 | 173 | 155 | 158 | 155 | 87 | 86 | 79 | 78 | 78 |
| 25% | 226 | 218 | 205 | 209 | 204 | 107 | 109 | 102 | 102 | 101 |
| Median | 289 | 279 | 269 | 266 | 262 | 141 | 138 | 132 | 130 | 129 |
| Mean | 301 | 291 | 278 | 276 | 273 | 147 | 146 | 138 | 137 | 136 |
| 75% | 365 | 353 | 339 | 339 | 331 | 177 | 179 | 167 | 167 | 165 |
| 90% | 441 | 429 | 411 | 408 | 407 | 219 | 217 | 206 | 204 | 202 |
| Inequality | | | | | | | | | | |
| Gini | 0.194 | 0.195 | 0.203 | 0.195 | 0.197 | 0.203 | 0.198 | 0.205 | 0.201 | 0.202 |
| A(2) | 0.130 | 0.128 | 0.142 | 0.127 | 0.132 | 0.136 | 0.127 | 0.140 | 0.132 | 0.135 |

1 Monthly 1992 dollars of food expenditure divided by square root of household size. Includes food at home and in restaraunts.
2 Complete population, weighted by (household weights * hhsize) in respective year.

| TABLE 4: Material Hardship - Expenditures on Children's clothing[1] | | | | | | |
|---|---|---|---|---|---|---|
| Equivalent Expenditure (/sqrt(# kids)) | | | | Per Child Expenditure (/ # kids) | | |
| | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 |
| Poverty | | | | | | |
| %<0.5* median[2] | 0.232 | 0.243 | 0.244 | 0.229 | 0.236 | 0.247 |
| FGT(1) | 0.1333 | 0.1351 | 0.1426 | 0.1342 | 0.1345 | 0.1444 |
| FGT(2) | 0.1055 | 0.1051 | 0.1113 | 0.1060 | 0.1046 | 0.1122 |
| Distribution | | | | | | |
| 10% | 6 | 6 | 6 | 4 | 5 | 4 |
| 25% | 22 | 20 | 18 | 15 | 14 | 13 |
| Median | 42 | 38 | 35 | 29 | 28 | 25 |
| Mean | 49 | 45 | 42 | 35 | 33 | 31 |
| 75% | 69 | 63 | 60 | 48 | 45 | 43 |
| 90% | 98 | 91 | 89 | 71 | 67 | 65 |
| Inequality | | | | | | |
| Gini | 0.406 | 0.410 | 0.429 | 0.420 | 0.421 | 0.441 |
| A(2) | 0.453 | 0.433 | 0.496 | 0.464 | 0.430 | 0.504 |

1 Monthly 1992 dollars of children's clothing expenditure divided by square root of household size
2 Complete population, weighted by (household weights * hhsize) in respective year.

TABLE 5: Material Hardship Among Children[1,2] - Housing Conditions

| | HFE | | | | |
|---|---|---|---|---|---|
| Percent of children | 1985 | 1993 | 1996 | 1998 | 2000 |
| Live in rented accommodation | 26.0 | 27.2 | 27.7 | 28.2 | 28.5 |
| Live in multiple family dwellings[3] | 25.2 | 24.2 | 25.0 | 26.3 | 27.8 |
| Live in crowded accommodation[4] | 15.4 | 11.9 | 12.1 | 12.4 | 12.0 |
| Share bedrooms[5] | 36.1 | 32.6 | 32.9 | 30.4 | 28.9 |
| No private bathroom in household | 0.5 | 0.1 | 0.1 | 0.0 | 0.0 |
| Lives in dwelling that needs major repairs | -- | 12.4 | 9.6 | 9.4 | 10.0 |
| Lives in dwelling that needs minor repairs[6] | -- | 17.7 | 18.1 | 20.3 | 29.6 |

1 Households with children only, weighted by (households weights * # of children in household)
2 1985, 1993 and 1996 Data are from respective years of the Household Furnishings and Equipment Survey. 1998 and 2000 Data are from the Survey of Household Expenditures.
3 single family dwellings include single detached and semi-detached housing, multiple includes row housing, duplexes, apartments etc.
4 one room or less per person
5 less than one bedroom per child
6 minor repairs other than regular maintenance

| TABLE 6: Material Hardship Among Children[1,2] - Durables Stocks | | | | | |
|---|---|---|---|---|---|
| Percent of children | HFE | | | | |
| | 1985 | 1993 | 1996 | 1998 | 2000 |
| No Telephone | 1.5 | 0.8 | 1.2 | 1.1 | 0.8 |
| No Automatic Washing Machine | 12.6 | 9.6 | 9.2 | 8.4 | 8.8 |
| No Automatic Clothes Dryer | 15.1 | 10.6 | 10.4 | 10.2 | 10.5 |
| No Colour Television | 4.2 | 0.9 | 0.9 | 0.6 | 0.9 |
| No Cable Television | 34.6 | 27.1 | 26.9 | 26.4 | 27.7 |
| No VCR | 50.6 | 7.8 | 5.3 | 3.0 | 2.7 |
| No CD Player | -- | 50.8 | 28.8 | 18.5 | 12.8 |
| No Computer | -- | 64.6 | 48.2 | 36.6 | 24.6 |
| No Internet | -- | -- | -- | 55.5 | 40.3 |
| No Refrigerator | 0.4 | 0.3 | 0.2 | 0.0 | 0.1 |
| No Microwave Oven | 56.9 | 9.5 | 8.0 | 5.6 | 3.5 |
| No Freezer | 27.3 | 27.0 | 31.2 | 30.7 | 32.0 |
| No Dishwasher | 48.4 | 42.1 | 39.3 | 38.5 | 35.8 |
| No Air Conditioning | 83.2 | 74.3 | 70.3 | 65.3 | 64.2 |
| No Vehicle (owned or leased) | -- | 9.0 | 9.3 | 9.9 | 9.2 |

1 Households with children only, weighted by (households weights * # of children in household)
2 1985, 1993 and 1996 Data are from respective years of the Household Furnishings and Equipment Survey. 1998 and 2000 Data are from the Survey of Household Expenditures.

TABLE 7: Alternative Poverty Lines[1]

| | ½ Median of Whole Population[2] in each year (relative) | | | | | ½ Median of Whole Population[3] in 1986 (fixed) | | | | | Pendakur[4] (absolute) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| Poverty | | | | | | | | | | | | | | | |
| %<0.5* median[2] | 0.042 | 0.022 | 0.049 | 0.036 | 0.043 | 0.042 | 0.030 | 0.039 | 0.043 | 0.048 | 0.051 | 0.033 | 0.044 | 0.048 | 0.052 |
| FGT(1) | 0.0056 | 0.0023 | 0.0051 | 0.0041 | 0.0047 | 0.0056 | 0.0029 | 0.0039 | 0.0053 | 0.0055 | 0.0064 | 0.0035 | 0.0046 | 0.0061 | 0.0064 |
| FGT(2) | 0.0011 | 0.0004 | 0.0009 | 0.0008 | 0.0010 | 0.0011 | 0.0005 | 0.0007 | 0.0011 | 0.0012 | 0.0013 | 0.0006 | 0.0008 | 0.0012 | 0.0014 |

1 Monthly 1992 dollars of total expenditure divided by square root of household size is compared to poverty lines to get poverty rates.
3 Complete population, weighted by (household weights * hhsize) in 1986.
4 from Pendakur (2001) equivalent of $8082/year (1992 dollars) based on needed expenditures for a single person in Toronto/Ottawa.

TABLE 8: Total Expenditure[1] with Alternative Equivalent Scales

| | Per Capita[2] | | | | | OECD[3] | | | | | Pendakur[4] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| Poverty | | | | | | | | | | | | | | | |
| %<0.5* median[5] | 0.093 | 0.078 | 0.111 | 0.104 | 0.116 | 0.057 | 0.032 | 0.048 | 0.042 | 0.056 | 0.039 | 0.018 | 0.040 | 0.029 | 0.0278 |
| FGT(1) | 0.1627 | 0.0100 | 0.0149 | 0.0150 | 0.0186 | 0.0073 | 0.0033 | 0.0057 | 0.0053 | 0.0074 | 0.0047 | 0.0018 | 0.0042 | 0.0034 | 0.0033 |
| FGT(2) | 0.0043 | 0.0021 | 0.0033 | 0.0035 | 0.0046 | 0.0016 | 0.0006 | 0.0011 | 0.0011 | 0.0016 | 0.0009 | 0.0003 | 0.0007 | 0.0007 | 0.0008 |
| Distribution | | | | | | | | | | | | | | | |
| 10% | 368 | 391 | 387 | 367 | 367 | 564 | 525 | 585 | 499 | 551 | 872 | 893 | 893 | 882 | 857 |
| 25% | 456 | 476 | 485 | 457 | 458 | 696 | 714 | 720 | 559 | 687 | 1120 | 1103 | 1128 | 1086 | 1078 |
| Median | 600 | 601 | 629 | 578 | 594 | 896 | 916 | 929 | 859 | 878 | 1410 | 1373 | 1465 | 1360 | 1365 |
| Mean | 632 | 637 | 661 | 614 | 625 | 934 | 937 | 967 | 904 | 918 | 1473 | 1435 | 1504 | 1408 | 1421 |
| 75% | 754 | 764 | 797 | 738 | 750 | 1114 | 1113 | 1154 | 1079 | 1094 | 1764 | 1718 | 1807 | 1668 | 1694 |
| 90% | 943 | 927 | 984 | 909 | 930 | 1359 | 1351 | 1417 | 1313 | 1339 | 2137 | 2076 | 2179 | 2014 | 2069 |
| Inequality | | | | | | | | | | | | | | | |
| Gini | 0.205 | 0.188 | 0.195 | 0.193 | 0.200 | 0.193 | 0.178 | 0.188 | 0.181 | 0.188 | 0.186 | 0.175 | 0.185 | 0.174 | 0.184 |
| A(2) | 0.130 | 0.107 | 0.117 | 0.114 | 0.123 | 0.115 | 0.096 | 0.108 | 0.101 | 0.110 | 0.109 | 0.094 | 0.108 | 0.096 | 0.106 |

1 Monthly 1992 dollars divided by alternative equivalence scales. Sample includes families with children weighted by (households weights * # of children in household). (Base Case total is expend/square root of household size).
2 per capita = total expend/(hhsize)
3 OECD = total expend/(1+(ad-1)*0.7+(kids)*0.5)
4 Pendakur=total expend/(ad+0.91*kids)^0.42)
5 In all cases we compare to the median of the *complete* population, weighted by household weights.

TABLE 9: Total Expenditure[1] with Alternative Deflating

| | Regional CPI | | | | | Regional Stone Price Quintiles | | | | | National Stone Price | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 | 1986 | 1992 | 1996 | 1998 | 2000 |
| Poverty | | | | | | | | | | | | | | | |
| %<0.5* median[2] | 0.048 | 0.031 | 0.047 | 0.034 | 0.040 | 0.040 | 0.020 | 0.043 | 0.030 | 0.034 | 0.048 | 0.031 | 0.046 | 0.036 | 0.040 |
| FGT(1) | 0.0058 | 0.0037 | 0.0052 | 0.0045 | 0.0050 | 0.0054 | 0.0018 | 0.0046 | 0.0033 | 0.0035 | 0.0059 | 0.0037 | 0.0052 | 0.0046 | 0.0049 |
| FGT(2) | 0.0012 | 0.0008 | 0.0010 | 0.0009 | 0.0012 | 0.0011 | 0.0003 | 0.0008 | 0.0006 | 0.0008 | 0.0012 | 0.0008 | 0.0010 | 0.0009 | 0.0011 |
| Distribution | | | | | | | | | | | | | | | |
| 10% | 712 | 733 | 732 | 736 | 741 | 767 | 802 | 797 | 791 | 775 | 711 | 733 | 740 | 720 | 702 |
| 25% | 923 | 906 | 917 | 919 | 923 | 978 | 971 | 995 | 962 | 963 | 915 | 906 | 929 | 895 | 879 |
| Median | 1177 | 1143 | 1189 | 1146 | 1178 | 1232 | 1201 | 1285 | 1191 | 1196 | 1170 | 1143 | 1203 | 1117 | 1116 |
| Mean | 1222 | 1192 | 1228 | 1188 | 1235 | 1286 | 1258 | 1319 | 1231 | 1242 | 1213 | 1192 | 1241 | 1159 | 1171 |
| 75% | 1460 | 1422 | 1467 | 1413 | 1495 | 1539 | 1496 | 1572 | 1449 | 1468 | 1451 | 1422 | 1484 | 1373 | 1417 |
| 90% | 1765 | 1722 | 1798 | 1709 | 1806 | 1861 | 1806 | 1902 | 1731 | 1780 | 1758 | 1722 | 1825 | 16723 | 1709 |
| Inequality | | | | | | | | | | | | | | | |
| Gini | 0.188 | 0.180 | 0.186 | 0.176 | 0.188 | 0.186 | 0.171 | 0.181 | 0.168 | 0.174 | 0.189 | 0.180 | 0.186 | 0.176 | 0.188 |
| A(2) | 0.111 | 0.101 | 0.109 | 0.098 | 0.110 | 0.109 | 0.089 | 0.103 | 0.089 | 0.095 | 0.112 | 0.101 | 0.108 | 0.098 | 0.109 |

1 Monthly 1992 dollars divided by square root of household size. Base Case is families with children weighted by (survey weights * # of children in household) deflated by Regional Stone Price index.
2 In all cases we compare to the median of the *complete* population, weighted by household weights.

Table 10: Decompositions of Equivalent Total Expenditure - Region

| | '86 | | '98 | | Change, 86-98 | | Decomposition | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share | FGT() | Share | FGT() | Share | FGT() | Share | FGT() | Residual | Sum |
| FGT(0) - Poverty Rate | | | | | | | | | | |
| Atlantic | 0.103 | 0.077 | 0.081 | 0.073 | -0.022 | -0.004 | -0.002 | 0.000 | 0.000 | -0.002 |
| Quebec | 0.254 | 0.049 | 0.232 | 0.038 | -0.022 | -0.011 | -0.001 | -0.003 | 0.000 | -0.004 |
| Ontario | 0.353 | 0.043 | 0.391 | 0.033 | 0.038 | -0.009 | 0.002 | -0.003 | 0.000 | -0.002 |
| Prairies | 0.184 | 0.016 | 0.176 | 0.024 | -0.008 | 0.009 | 0.000 | 0.002 | 0.000 | 0.001 |
| B.C. | 0.107 | 0.038 | 0.120 | 0.034 | 0.013 | -0.004 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | | 0.042 | | 0.036 | | | -0.001 | -0.005 | 0.000 | -0.006 |
| FGT (1) - Mean Poverty Gap | | | | | | | | | | |
| Atlantic | 0.1030 | 0.0096 | 0.0806 | 0.0078 | -0.0224 | -0.0017 | -0.0002 | -0.0002 | 0.0000 | -0.0004 |
| Quebec | 0.2540 | 0.0060 | 0.2321 | 0.0044 | -0.0219 | -0.0015 | -0.0001 | -0.0004 | 0.0000 | -0.0005 |
| Ontario | 0.3530 | 0.0063 | 0.3915 | 0.0043 | 0.0385 | -0.0019 | 0.0002 | -0.0007 | -0.0001 | -0.0005 |
| Prairies | 0.1840 | 0.0015 | 0.1759 | 0.0031 | -0.0081 | 0.0016 | 0.0000 | 0.0003 | 0.0000 | 0.0003 |
| B.C. | 0.1070 | 0.0058 | 0.1199 | 0.0019 | 0.0129 | -0.0039 | 0.0001 | -0.0004 | 0.0000 | -0.0004 |
| Total | | 0.0056 | | 0.0041 | | | 0.0000 | -0.0014 | -0.0001 | -0.0015 |
| FGT(2) - Mean Squared Normalized Poverty Gap | | | | | | | | | | |
| Atlantic | 0.1030 | 0.0018 | 0.0806 | 0.0013 | -0.0224 | -0.0005 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| Quebec | 0.2540 | 0.0011 | 0.2321 | 0.0009 | -0.0219 | -0.0002 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| Ontario | 0.3530 | 0.0014 | 0.3915 | 0.0009 | 0.0385 | -0.0005 | 0.0001 | -0.0002 | 0.0000 | -0.0001 |
| Prairies | 0.1840 | 0.0003 | 0.1759 | 0.0007 | -0.0081 | 0.0004 | 0.0000 | 0.0001 | 0.0000 | 0.0001 |
| B.C. | 0.1070 | 0.0010 | 0.1199 | 0.0001 | 0.0129 | -0.0009 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| Total | | 0.0011 | | 0.0008 | | | 0.0000 | -0.0003 | 0.0000 | -0.0003 |

Table 11: Decompositions of Equivalent Total Expenditure - Age of Household Head

| | '86 | | '98 | | Change, 86-98 | | Decomposition | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share | FGT() | Share | FGT() | Share | FGT() | Share | FGT() | Residual | Sum |
| FGT(0) - Poverty Rate | | | | | | | | | | |
| <25 | 0.040 | 0.149 | 0.031 | 0.085 | -0.008 | -0.064 | -0.001 | -0.003 | 0.001 | -0.003 |
| 26-35 | 0.374 | 0.045 | 0.306 | 0.048 | -0.068 | 0.003 | -0.003 | 0.001 | 0.000 | -0.002 |
| 36-55 | 0.551 | 0.025 | 0.644 | 0.028 | 0.092 | 0.003 | 0.002 | 0.002 | 0.000 | 0.004 |
| >55 | 0.035 | 0.159 | 0.019 | 0.039 | -0.016 | -0.120 | -0.003 | -0.004 | 0.002 | -0.005 |
| Total | | 0.042 | | 0.036 | | | -0.005 | -0.004 | 0.003 | -0.006 |
| FGT (1) - Mean Poverty Gap | | | | | | | | | | |
| <25 | 0.0395 | 0.0205 | 0.0314 | 0.0099 | -0.0081 | -0.0105 | -0.0002 | -0.0004 | 0.0001 | -0.0005 |
| 26-35 | 0.3739 | 0.0043 | 0.3060 | 0.0052 | -0.0679 | 0.0008 | -0.0003 | 0.0003 | -0.0001 | 0.0000 |
| 36-55 | 0.5513 | 0.0045 | 0.6437 | 0.0034 | 0.0925 | -0.0012 | 0.0004 | -0.0006 | -0.0001 | -0.0003 |
| >55 | 0.0353 | 0.0189 | 0.0189 | 0.0040 | -0.0164 | -0.0149 | -0.0003 | -0.0005 | 0.0002 | -0.0006 |
| Total | | 0.0056 | | 0.0041 | | | -0.0004 | -0.0013 | 0.0002 | -0.0015 |
| FGT(2) - Mean Squared Normalized Poverty Gap | | | | | | | | | | |
| <25 | 0.0395 | 0.0039 | 0.0314 | 0.0016 | -0.0081 | -0.0023 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| 26-35 | 0.3739 | 0.0007 | 0.3060 | 0.0011 | -0.0679 | 0.0004 | 0.0000 | 0.0001 | 0.0000 | 0.0001 |
| 36-55 | 0.5513 | 0.0012 | 0.6437 | 0.0007 | 0.0925 | -0.0005 | 0.0001 | -0.0003 | 0.0000 | -0.0002 |
| >55 | 0.0353 | 0.0025 | 0.0189 | 0.0005 | -0.0164 | -0.0020 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| Total | | 0.0011 | | 0.0008 | | | 0.0000 | -0.0003 | 0.0000 | -0.0003 |

Table 12: Poverty Decompositions by Family Type

| | '86 | | '98 | | Change, 86-98 | | Decomposition | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share | FGT() | Share | FGT() | Share | FGT() | Share | FGT() | Residual | Sum |
| FGT(0) - Poverty Rate | | | | | | | | | | |
| Couple | 0.845 | 0.026 | 0.784 | 0.020 | -0.070 | -0.007 | -0.002 | -0.006 | 0.000 | -0.007 |
| Lone Parent | 0.106 | 0.177 | 0.132 | 0.119 | 0.026 | -0.058 | 0.005 | -0.006 | -0.002 | -0.003 |
| Other | 0.049 | 0.024 | 0.084 | 0.058 | 0.035 | 0.034 | 0.001 | 0.002 | 0.001 | 0.004 |
| Total | | 0.042 | | 0.036 | | | 0.004 | -0.010 | 0.000 | -0.006 |
| FGT (1) - Mean Poverty Gap | | | | | | | | | | |
| Couple | 0.854 | 0.004 | 0.784 | 0.002 | -0.070 | -0.002 | -0.0003 | -0.0017 | 0.0001 | -0.0018 |
| Lone Parent | 0.106 | 0.019 | 0.132 | 0.014 | 0.026 | -0.005 | 0.0005 | -0.0006 | -0.0001 | -0.0002 |
| Other | 0.049 | 0.003 | 0.084 | 0.009 | 0.035 | 0.005 | 0.0001 | 0.0003 | 0.0002 | 0.0006 |
| Total | | 0.0056 | | 0.0041 | | | 0.0003 | -0.0020 | 0.0002 | -0.0015 |
| FGT(2) - Mean Squared Normalized Poverty Gap | | | | | | | | | | |
| Couple | 0.854 | 0.0009 | 0.784 | 0.0004 | -0.070 | -0.0006 | -0.0001 | -0.0005 | 0.0000 | -0.0005 |
| Lone Parent | 0.106 | 0.0033 | 0.132 | 0.0029 | 0.026 | -0.0004 | 0.0001 | 0.0000 | 0.0000 | 0.0000 |
| Other | 0.049 | 0.0006 | 0.084 | 0.0017 | 0.035 | 0.0011 | 0.0000 | 0.0001 | 0.0000 | 0.0001 |
| Total | | 0.0011 | | 0.0008 | | | 0.000 | 0.000 | 0.0001 | -0.0003 |

TABLE 13: Major Household Income Source Among Children[1,2]

| Percent of children | HFE | | | | |
|---|---|---|---|---|---|
| | 1985 | 1993 | 1996 | 1998 | 2000 |
| Major Source of Income is Earned Income[3] | 87.1 | 82.2 | 83.7 | 86.3 | 88.1 |
| Major Source of Income is Transfers[4] | 10.8 | 15.9 | 14.1 | 11.8 | 10.5 |
| Major Source of Income is Other[5] | 2.0 | 1.7 | 2.1 | 1.9 | 1.5 |

1 Households with children only, weighted by (households weights * # of children in household)
2 1985, 1993 and 1996 Data are from respective years of the Household Furnishings and Equipment Survey. 1998 Data are from the Survey of Household Expenditures.
3 includes wages, salaries and income from self-employment
4 includes those who claim they have no income
5 includes investment income, private pensions and annuities

Table 14: Poverty Decomposition - by Labour Force Activity, Couples with Children

| | '86 | | '98 | | Change, 86-98 | | Decomposition | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share | FGT() | Share | FGT() | Share | FGT() | Share | FGT() | Residual | Sum |
| FGT(0) - Poverty Rate | | | | | | | | | | |
| Both Full Year | 0.204 | 0.001 | 0.308 | 0.000 | 0.104 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1 Full Year, 1 Part Year | 0.351 | 0.003 | 0.346 | 0.006 | -0.006 | 0.002 | 0.000 | 0.001 | 0.000 | 0.001 |
| 1 Full Year | 0.239 | 0.041 | 0.156 | 0.023 | -0.083 | -0.018 | -0.003 | -0.004 | 0.001 | -0.006 |
| Both Part Year | 0.101 | 0.016 | 0.095 | 0.022 | -0.006 | 0.006 | 0.000 | 0.001 | 0.000 | 0.000 |
| 1 Part Year | 0.085 | 0.047 | 0.071 | 0.053 | -0.014 | 0.006 | -0.001 | 0.001 | 0.000 | 0.000 |
| Both Not Working | 0.020 | 0.470 | 0.024 | 0.322 | 0.004 | -0.147 | 0.002 | -0.003 | -0.001 | -0.002 |
| Total | | 0.026 | | 0.019 | | | -0.002 | -0.005 | 0.001 | -0.007 |
| FGT (1) - Mean Poverty Gap | | | | | | | | | | |
| Both Full Year | 0.2038 | 0.0002 | 0.3077 | 0.0002 | 0.1039 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1 Full Year, 1 Part Year | 0.3515 | 0.0002 | 0.3458 | 0.0004 | -0.0056 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1 Full Year | 0.2389 | 0.0071 | 0.1557 | 0.0026 | -0.0832 | -0.0045 | -0.0006 | -0.0011 | 0.0004 | -0.0013 |
| Both Part Year | 0.1008 | 0.0028 | 0.0951 | 0.0012 | -0.0057 | -0.0016 | 0.0000 | -0.0002 | 0.0000 | -0.0002 |
| 1 Part Year | 0.0851 | 0.0067 | 0.0712 | 0.0064 | -0.0138 | -0.0003 | -0.0001 | 0.0000 | 0.0000 | -0.0001 |
| Both Not Working | 0.0200 | 0.0646 | 0.0245 | 0.0348 | 0.0045 | -0.0298 | 0.0003 | -0.0006 | -0.0001 | -0.0004 |
| Total | | 0.0040 | | 0.0020 | | | -0.0004 | -0.0018 | 0.0003 | -0.0019 |
| FGT(2) - Mean Squared Normalized Poverty Gap | | | | | | | | | | |
| Both Full Year | 0.2038 | 0.0000 | 0.3077 | 0.0001 | 0.1039 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1 Full Year, 1 Part Year | 0.3515 | 0.0000 | 0.3458 | 0.0001 | -0.0056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 1 Full Year | 0.2389 | 0.0019 | 0.1557 | 0.0004 | -0.0832 | -0.0015 | -0.0002 | -0.0004 | 0.0001 | -0.0004 |
| Both Part Year | 0.1008 | 0.0007 | 0.0951 | 0.0002 | -0.0057 | -0.0005 | 0.0000 | -0.0001 | 0.0000 | -0.0001 |
| 1 Part Year | 0.0851 | 0.0015 | 0.0712 | 0.0013 | -0.0138 | -0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Both Not Working | 0.0200 | 0.0113 | 0.0245 | 0.0060 | 0.0045 | -0.0053 | 0.0001 | -0.0001 | 0.0000 | -0.0001 |
| Total | | 0.0009 | | 0.0004 | | | -0.0001 | -0.0005 | 0.0001 | -0.0005 |

Table 15: Poverty Decompositions by Labour Force Activity, Lone Parents

| | '86 | | '98 | | Change, 86-98 | | Decomposition | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share | FGT() | Share | FGT() | Share | FGT() | Share | FGT() | Residual | Sum |
| FGT(0) - Poverty Rate | | | | | | | | | | |
| Full Year | 0.062 | 0.000 | 0.069 | 0.005 | 0.007 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 |
| Part Year | 0.501 | 0.028 | 0.589 | 0.032 | 0.088 | 0.003 | 0.002 | 0.002 | 0.000 | 0.004 |
| Not Working | 0.437 | 0.372 | 0.343 | 0.292 | -0.095 | -0.081 | -0.035 | -0.035 | 0.008 | -0.063 |
| Total | | 0.177 | | 0.119 | | | -0.033 | -0.033 | 0.008 | -0.058 |
| FGT (1) - Mean Poverty Gap | | | | | | | | | | |
| Full Year | 0.0616 | 0.0000 | 0.690 | 0.0006 | 0.6279 | 0.0006 | 0.0000 | 0.0000 | 0.0004 | 0.0004 |
| Part Year | 0.5013 | 0.0034 | 0.589 | 0.0036 | 0.0875 | 0.0003 | 0.0003 | 0.0001 | 0.0000 | 0.0004 |
| Not Working | 0.4371 | 0.0405 | 0.343 | 0.0342 | -0.0946 | -0.0063 | -0.0038 | -0.0027 | 0.0006 | -0.0060 |
| Total | | 0.0194 | | 0.0143 | | | -0.0035 | -0.0026 | 0.0010 | -0.0051 |
| FGT(2) - Mean Squared Normalized Poverty Gap | | | | | | | | | | |
| Full Year | 0.0616 | 0.0000 | 0.690 | 0.0001 | 0.6279 | 0.0001 | 0.0000 | 0.0000 | 0.0001 | 0.0001 |
| Part Year | 0.5013 | 0.0006 | 0.589 | 0.0006 | 0.0875 | -0.0001 | 0.0001 | 0.0000 | 0.0000 | 0.0000 |
| Not Working | 0.4371 | 0.0068 | 0.343 | 0.0075 | -0.0946 | 0.0007 | -0.0006 | 0.0003 | -0.0001 | -0.0004 |
| Total | | 0.0033 | | 0.0029 | | | -0.0006 | 0.0003 | 0.0000 | -0.0003 |

## NOTES

1.Some documentation refers to the Earned Income Supplement (EIS) as the Working Income Supplement (WIS). For continuity we will always refer to it as the Earned Income Supplement (EIS).

2.The Canadian *Survey of Consumer Finances* is not like the U.S. survey of the same name. Rather, it is very similar to the U.S. *March Current Population Survey* .

3.A group of individuals sharing a common dwelling unit and related by blood marriage or adoption.

4.The national unemployment rate was 9.2% in 1986, 9.3% in 1996, 8.3% in 1998 and 6.8% in 2000. Of the years we study, 1992 is strikingly different; the national unemployment rate peaked at 11.4% before recovering through the middle of the decade.

5. We define this to include expenditure on all food (at home and in restaurants), shelter (rented, owned, other accommodation, including water charges, heat, and hydro), household operations (communication, child care, laundry, cleaning, pet care, and household supplies), household furnishings and equipment (including services related to furnishings and equipment), transportation (operating expenses, rental vehicles, local commuter expenses, intercity transportation services), clothing, health care expenses, personal care supplies, equipment and services, recreational expenses (less recreational vehicles and outboard motors), home entertainment equipment and services, reading materials and other printed matter, and education (tuition, textbooks, supplies and services).

6.The polar opposite assumption, that each member of the household has access to the resources (income) that she brings into the household is even less sensible; clearly some sharing of resources occurs. This is particularly the case when we are concerned with children, many of whom bring no resources into the household.

7.There is a measure of expenditures on toys but this includes any toys, games or hobby equipment purchased by the family, not just those purchased for children.

8.Pendakur finds that the rate of consumption poverty among children rose from 3.3% in 1986 to 4.2% in 1998, while we find that it fell from 4.2% to 3.6% between 1986 and 1998 and then rose again to 4.3% in 2000. Potential sources of the discrepancy between our result and Pendakur's are explored in Section 4.

9.Statistics Canada has recently developed a market basket poverty measure.

10. based on Statistics Canada's Low-income Cutoff, 1986 base.

11.This definition of regions is imposed by the data.

12. The FAMEX data include a measure of weeks work rather than hours worked thus, we report full-year vs part-year work rather than full-time vs part-time.